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# BEGINNING WEB DEVELOPMENT

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# HTML BASICS

## ■ What is HTML?

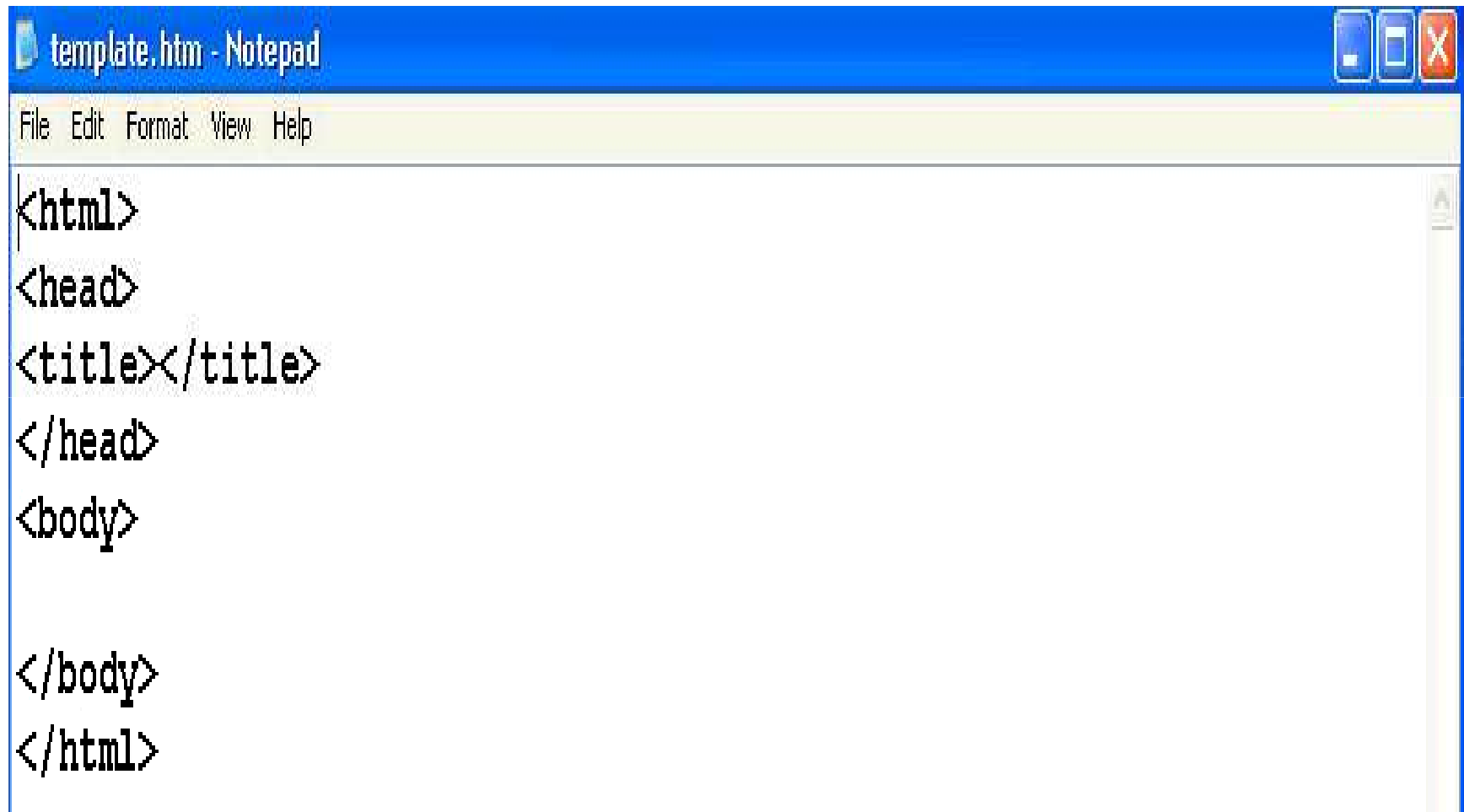
- ❑ It is sometimes referred to as the language of the Internet.
- ❑ It stands for **H**yper**T**ext **M**arkup **L**anguage
- ❑ It is a set of specifications for creating special documents that a browser can display as a Web page.
- ❑ It is the most fundamental tool for Web development.
- ❑ It is called hypertext, because it references a group of interlinked files.

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# HTML BASICS

- It is called markup language, because authors mark up their documents by inserting special instructions called *HTML tags*.
- The elements in a Web page that uses HTML cannot be changed while it is being viewed.
- It is not case sensitive and its latest version is 4.01.

# HTML SAMPLE CODE

A screenshot of a Notepad window titled 'template.htm - Notepad'. The window has a blue title bar with standard Windows window controls (minimize, maximize, close) on the right. Below the title bar is a menu bar with 'File', 'Edit', 'Format', 'View', and 'Help'. The main text area contains the following HTML code:

```
<html>  
<head>  
<title></title>  
</head>  
<body>  
  
</body>  
</html>
```

A vertical scrollbar is visible on the right side of the text area.

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# PRACTICE #1

1. Go to your favorite Website using **Internet Explorer**.
2. Click **View** on the menu bar
3. Click **Source**. This displays the source code behind the current Webpage.



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# MINIMUM REQUIREMENTS TO CREATE AN HTML FILE

## ■ Text Editor

- ❑ Using this program, HTML code can be written and saved as a file.
- ❑ Files are usually saved as **.htm** or **.html** format.
  - Examples: Notepad, Textpad.

## ■ Web browser

- ❑ Software to “test” the HTML code created with the text editor.
  - Internet Explorer, Mozilla Firefox

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# ADDING DOCUMENT DECLARATION

- Document declarations let the web browser know which version of HTML the web page is using.
  - There are three types: **transitional**, strict, and frameset.
  - We will focus on transitional, since strict is not being supported by every browser, and frameset is only needed if frames are used.
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# ADDING DOCUMENT DECLARATION

## ■ HTML TRANSITIONAL

- ❑ Most inclusive version, supported by all web browsers.
- ❑ Includes all the standard structural elements and presentation elements.
- ❑ Type the following at the very beginning of the HTML document.

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0  
Transitional//EN" "http://www.w3.org/TR/REC-  
html40/loose.dtd">
```

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# ADDING METADATA

- Used to give more details about your web page such as page description, authoring information, copyrights, keywords, and more.
  - Meta data does not appear on the web page itself; however, the information is useful with search engines that take a glimpse at your page.
  - Goes after the document declaration, within the head tags.
  - They use the **META NAME** and **CONTENT** tags
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# ADDING METADATA

- They should be placed in the web page header section.

- Example:

- Author Name

- `<META NAME = "author" CONTENT = "Paul Stanley">`

- Page Description

- `<META NAME = "description" CONTENT = "Paul's Heavy Metal Sanctum">`

- Specify Keywords

- `<META NAME = "keywords" CONTENT = "KISS, concerts, Gene Simmons">`

- Add a copyright

- `<META NAME = "copyright" CONTENT = "2006">`

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# HTML STRUCTURE

- ❑ Tags must not overlap
- ❑ Thanks to the tags, the HTML document is divided into two main sections: Head and Body.

- ❑ Example:

**<HTML>**

**<HEAD>**[information about the document]**</HEAD>**

**<BODY>**[data to appear on browser page]**</BODY>**

**</HTML>**

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## PRACTICE #2

1. Open **Notepad** or any other text editor. A blank Notepad windows appears.
2. Add a document declaration.
3. In the first line after the document declaration, type **<html>**
4. In the second line, type **<head>**
5. In the third line, type **<title>Curriculum Vitae for Joe Friday</title>**
6. In the next line, enter meta data for author name, and page description.

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## PRACTICE #2

7. In the next line, type **</head>**
  - By doing this, we finish with the head section.
8. In the next line, type **<body>** and press ENTER twice.
9. In the next line type **</body>**
10. In the next line, type **</html>**

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# SAVING A HTML DOCUMENT\*

1. Click **File** on the menu bar.
2. Click **Save As**.
3. In the **File name** textbox, type the new name that you want to give to your file enclosed in double quotes.
4. Click on the **Save in** list arrow and select the storage device where you want to save your document (A: 3 ½ Floppy Drive, or C: )
5. Click on the **Save** button.

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## PRACTICE #3

1. Save your file as “**JoeFridayCV.htm**” inside your own storage device, or inside **MyDocuments** folder.



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# HTML CONTENT ORGANIZATION

## ■ Headings

- ❑ Break up a page's content into small and more manageable section.
- ❑ Provides a visible organization.
- ❑ Page headings should act as a table of contents or outline to quickly find the desired information.

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# HTML CONTENT ORGANIZATION

- ❑ There are different levels of headings
- ❑ HTML provides up to six levels of heading; it is best to consider the organization of the text, rather than the sizes:
  - Heading 1
    - ❑ Displays the page's main heading using the **H1** tag.
    - ❑ Typically, there is only one of these per page.
  - Heading 2
    - ❑ It is used to display main section headings throughout the page using the **H2** tag.
  - Heading 3
    - ❑ It is used to display sub section headings throughout the page using the **H3** tag.

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# HTML CONTENT ORGANIZATION

## ■ Paragraphs

- ❑ Text that is displayed with a blank line above and below it, usually in a standard font.
- ❑ Created with **P** tags.

## ■ Comments

- ❑ Allows users to enter remarks that will not be displayed in the Web browser.
- ❑ Example:
  - **<!-- This is my first comment -->**

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## PRACTICE #4

1. In the first line of the **body** section, type **<h1>Joe Fridays</h1>**
2. Press **ENTER** to move to the next line.
3. Type **<h1>Curriculum Vitae</h1>** and press **ENTER**.
4. Type **<h2>Job Position</h2>**
5. Press **ENTER** twice.
6. Type **<h2>Job Address</h2>**
7. Press **ENTER** twice.
8. Type **<h2>Education</h2>** and press **ENTER**.

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## PRACTICE #4

9. Press **ENTER** to move to the next line.
10. Type **<h2>Research Interests</h2>**
11. Press **ENTER** twice.
12. Type **<h2>Experience</h2>**
13. Press **ENTER** twice.
14. Type **<h2>Teaching Activities</h2>**
15. Press **ENTER** twice.
16. Resave and preview your work in the Web browser.

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## PRACTICE #4

17. Go to the end of the line that says **Job Position** and press **ENTER**.
18. Type `<p> your job position </p>` (Type your current job position)
19. Go to the end of the line that says **Teaching Activities** and press **ENTER**.
20. Type `<p>teaching activity #1 </p>` (replace it with your own teaching activity) and press **ENTER**.
21. Type `<p>teaching activity #2 </p>` (replace it with your own teaching activity) and press **ENTER**.
22. Go to the end of the line that says **Job Address** and press **ENTER**.
23. Type `<p>(555) 555-1234 </p>` and press **ENTER** twice.
24. Re-save your work

# MORE HTML CONTENT ORGANIZATION

## ■ Lists

- In HTML there are three types of lists:
  - **Ordered list** (i.e. cooking recipe, since the order matters)
  - **Unordered list** (i.e. list of groceries, since we don't care in which order items are found)
  - **Definition list** which consists of terms and definitions.

## ■ Horizontal Rule

- Draws an horizontal line that acts as a divider between sections in a page.
- Use the **<hr />** tag
- Unlike other tags, it doesn't come in pairs since there is no content to be placed between opening and closing **hr** tags.

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# PRACTICE #5

1. Below **Education** type `<ul>` and press **ENTER**.
2. Type at least two or three academic degrees earned. Follow this example:
  - ❑ `<li> my last degree earned </li>`
  - ❑ `<li> my second to last degree earned </li>`
  - ❑ `<li> my third to last degree earned </li>`
3. In the blank line just below your last degree, type `</ul>`
4. In the blank line just below the phrase **Teaching Activities**, type `<ol>`
5. Change the `<p>` tags to `<li>` tags and `</p>` tags to `</li>` tags for each of your teaching activities.
6. In the line below your last teaching activity, type `</ol>`
7. Re-save your work.

# ADDING LINE BREAKS AND IMAGES

## ■ Line Break

- Creates a line break, placing following text immediately below it.
- Use the **<br />** tag
- Akin to **hr**, it doesn't come in pairs since there is no content to be placed between opening and closing **br** tags.

## ■ Images

- Images complement the presence of text, to make web pages more visually attractive.
- The image tag is somewhat more complicated than previous tags:
  - ****
    - **src**: refers to the file representing the image (default location = html file location)
    - **width**: refers to the width allocated for the image in pixels.
    - **height**: refers to the height allocated for the image in pixels.
    - **alt**: refers to the text that is displayed in case the image can't be seen.\*

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# ADDING STYLES

- Styles gives a page a custom appearance making changes to the:
  - Color or background color of any element on the page.
  - Alignment of headings and pictures.
  - Appearance of the bullets.
  - Length, thickness, and color of the horizontal line.
  - Alignment of certain parts of the HTML document.
- Style properties are not part of the HTML language itself.
- Instead, they are part of the Cascading Style Sheet language (CSS)

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# ADDING STYLES

- To insert a style:
  1. Go to the opening tag of the element that requires the style.
  2. After the tag itself, but before the **>** symbol type **style=""**.
  3. Between the double quotes, type the desired property name followed by a colon and the value of the property.
    - Example: `<h1 style="text-align: left">`

# ADDING HORIZONTAL LINE STYLES

- To insert a horizontal line style
  1. Go to the opening tag of the horizontal rule element that requires the style.
  2. After the tag itself, but before the > symbol type **style=""**.
  3. Between the double quotes, type the desired property name followed by a colon and the value of the property.
    - Example: <hr **style="width: 70%; color: blue />**

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# HYPERLINKS

- They are also referred as links and represent the glue that holds the web together.
- Allows users to navigate around within a website and provide connections between websites.
- Links can be set up to:
  - ❑ Take you to different pages of the same website. (Navigation bar)
  - ❑ Take you to different sections of the same page (instead of having to constantly scroll up and down).
  - ❑ Take you to different websites.
  - ❑ Open your e-mail program to send the recipient of the link an e-mail message.

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# CREATING LINKS

- Regardless of the type of link, they all begin with the `<a>` tag with the href attribute.
- This attribute tells the browser what to do when the link is clicked.
- Example #1: different page, same website
  - `<a href="about.htm">About us </a>`
    - This page should be in the same location as the web page where this link is found.

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# CREATING LINKS

- Example #2: same page, different section
  - **`<a href=#objective>Objective </a>`**
    - Somewhere else in the page should exist an id with the name objective.
    - **`<h2 id=objective>Objective</h2>`**
- Example #3: different website
  - **`<a href=http://www.download.com>Click here to go to Download.com</a>`**

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# PRACTICE #6

1. Open the Joe Friday's CV file if it is not already open.
2. Just below the horizontal line, type **Table of Contents** as H2.
3. Between **Table of Contents** and **Job Position** headings, type the following:
  - ❑ Job Position <br/>
  - ❑ Education <br/>
  - ❑ Teaching <br/>
4. Modify the **Education** header to include a section tag.
5. Repeat the process with your other sections.
6. Modify your items in the table of content to act as links to different sections in the same page.
7. Re-Save your page

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# INSERTING BLOCK QUOTES

- Text that represents citation or a quote from someone.
  - **<BLOCKQUOTE>** And when you look into the abyss, the abyss also looks back into you.  
**</BLOCKQUOTE>**

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# PRACTICE #7

1. Before the closing **body** tag, insert your favorite quote.
2. Re-save your page

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## SOME GUIDELINES FOR CREATING WEB PAGES IN HTML

- Make sure that you test your Web page with different browsers, different versions of the browsers and different platforms (Windows, Mac, etc.)
- Keep all the extra files that your web page needs in the same location as your web page.
- For pictures, always use alternative text, since many times and for different reasons pictures are not displayed at all in the web browser.

